Reaction Chemistry & Engineering

Supplementary Information

Solid phase extraction based on the phase transition of poly(*N*-isopropylacrylamide): the extraction behaviour of lanthanide(III) ions in highly acidic solutions

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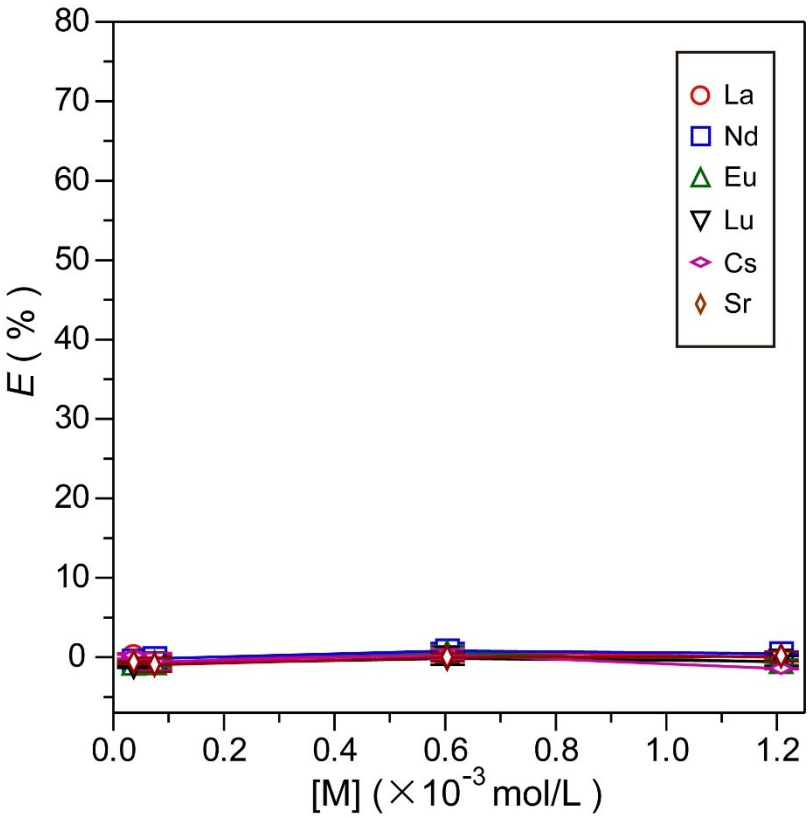

Fig. S1 Extraction percentage obtained in the absence of CMPO. [M]: initial concentration of each metal ions. The quantitative condition: PNIPAAm; 30.8 mg, [HNO_3] = 1.0 mol/L, solution volume; 15 mL. In all experiments, the complexation process and phase separation were carried out by vigorous stirring at 20 ºC for 1 h and at 40 ºC for 1 h, respectively.

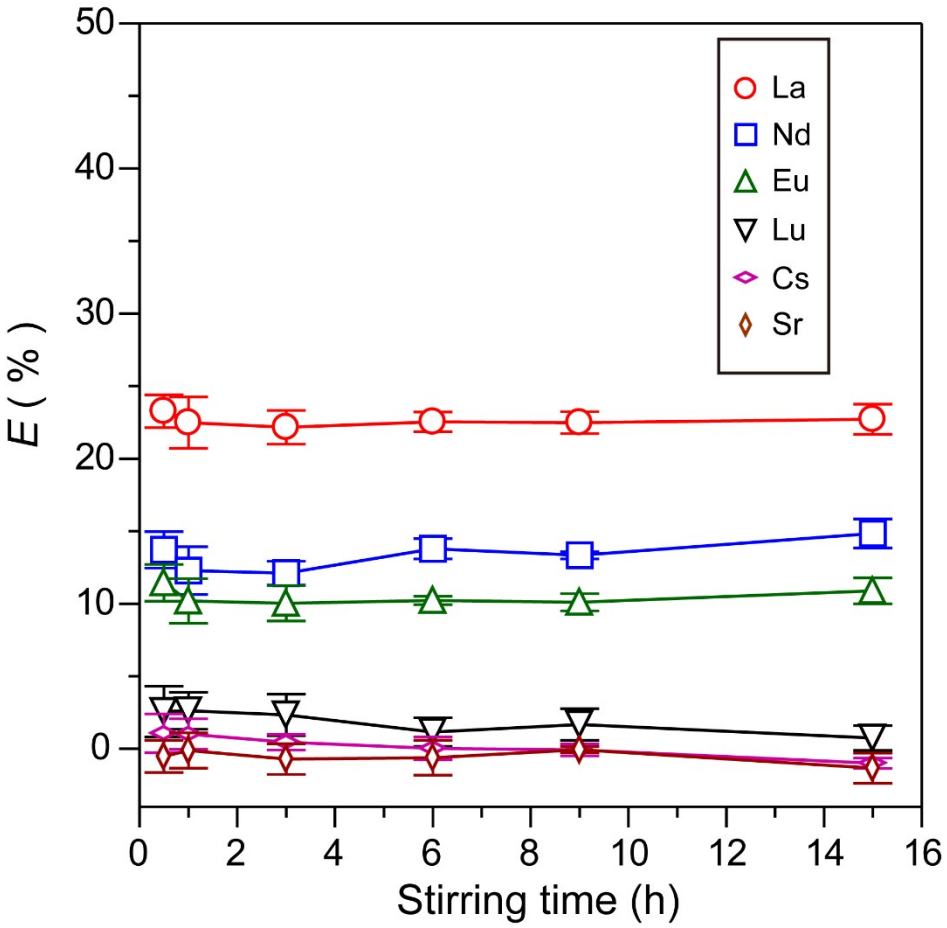

Fig. S2 Extraction percentage plotted with stirring time in complexation process before phase separation. The quantitative condition: PNIPAAm; 30.8 mg, CMPO; 11.1 mg, [Ln] = [Cs] = [Sr] = 1.21 mmol/L, $[HNO_3]$ = 1.0 mol/L, solution volume; 15 mL. The complexation process was kept at 20ºC, and subsequent phase separation was conducted by vigorous stirring at 40 ºC for 1 h in all experiments.